

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017500**Date Inspected:** 29-Sep-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Mr. Yu Dong Ping/ Mr. Zhao Chen			CWI Present:	Yes	No
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No N/A
				Delayed / Cancelled:	Yes	No N/A
Bridge No:	34-0006			Component:	Tower	

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance (QA) Inspector Baskar Govindarajan was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

Heavy Dock#Tower Trial assembly

This QA Inspector observed the following work in progress

Shielded Metal Arc Welding (SMAW):

Weld joint # 10 located on 89 mtr. elevation, Skin A, Façade plate. Welder is identified as 040365. ZPMC Certified welding Inspector (CWI) is identified as Zhao Chen Sun. The welding variables recorded by QC appeared to comply with the WPS – B – T – 4113-2.

Weld joint # 11 located on 89 mtr. elevation, Skin A, Façade plate. Welder is identified as 057266. ZPMC Certified welding Inspector (CWI) is identified as Zhao Chen Sun. The welding variables recorded by QC appeared to comply with the WPS – B – T – 4113-2.

Repair welding of weld joint # 28, located on West tower, Lift 3, 109 mtr. elevation, WSD1-FASA3 -2 B/E. Welder is identified as 040610. ZPMC Certified welding Inspector (CWI) is identified as Zhao Chen Sun. The

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welding variables recorded by QC appeared to comply with the WPS – 345+485 – SMAW – 2G (2F) – FCM- Repair.

Dimensions Measurement:

This QA inspector, Baskar Govindarajan, performed, misalignment, Gap measurements of Interior splice plates of Skin A, B, C, D and E between West shaft Lift 3 & 4 . This measurement of gap and misalignment was carried out along with QA Inspector Mr. Sandeep Kumar whose lot no. is B 227. All the reading taken has handed over to Task Leader.

This QA Inspector observed the following work not in compliance:

Description of Incident:

During the Quality Assurance Inspection of Dimension measurements at Heavy Dock, Tower trial assembly area, this Quality Assurance Inspector (QA) discovered the following issue:

- Approx. 85 mm length, 25 mm width, Weld metal Removal observed in Skin E, Fit lug weld without Engineer's approval.
- The Fit lug found in West Tower, Lift 4- 119 mtr. top diaphragm.
- The Weld joint no. of the fit lug weld found to be WSTL4-2 G/L-84.

Applicable reference:

AWS D1.5 Section 3.7.5- “ The Engineer shall be notified before improperly fitted and welded members are cut apart.”

This QA notified ZPMC QC identified as Mr. Zhao Chen Sun and ABF inspector identified as Mr. Bi De Wei of the above issue and that an incident report will be generated.

Bay #11

This QA Inspector observed the following work in progress

Shielded Metal Arc Welding (SMAW):

Weld joint # 11B located on Lift-5 Bracket ND1 – BRSA5 – 2. Welder is identified as 054460. ZPMC Certified welding Inspector (CWI) is identified as Yu Dong Ping. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3213 – Tc – U4b.

Weld joint # 7B located on Lift-5 Bracket ND1 – BRSA5 – 2. Welder is identified as 044541. ZPMC Certified welding Inspector (CWI) is identified as Yu Dong Ping. The welding variables recorded by QC appeared to

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comply with the WPS – B – T – 3213 – Tc – U4b.

Weld joint # 13A, 9A located on Lift-5 Bracket SD1 – BRSA5 – 1. Welder is identified as 046769 and 041271. ZPMC Certified welding Inspector (CWI) is identified as Yu Dong Ping. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3213 – Tc – U4b.

Fluxcored Arc Welding (FCAW):

Weld joint # 027, 029 located on Bike Path BK004A – 023. Welder is identified as 047023. ZPMC Certified welding Inspector (CWI) is identified as Yu Dong Ping. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2131.

Weld joint # 040, 041 located on Bike Path BK004A – 020. Welder is identified as 067138 and 066746. ZPMC Certified welding Inspector (CWI) is identified as Yu Dong Ping. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132.

Bay #10

This QA Inspector observed the following work in progress

Shielded Metal Arc Welding (SMAW):

Repair welding of weld joint # 10, located on Façade plate, WD1-SFSA3-15-1-10. Welder is identified as 057220. ZPMC Certified welding Inspector (CWI) is identified as Qiu Wen. The welding variables recorded by QC appeared to comply with the WPS – 345 – SMAW – 2G (2F) - Repair.

For further information see below pictures:-

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

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Summary of Conversations:

No relevant Conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Micheal Ng (15921845703), who represents the Office of Structural Materials for your project.

Inspected By: Baskar, Govindarajan

Quality Assurance Inspector

Reviewed By: Clifford, William

QA Reviewer